Volume 16 Contents

January

Editorial 1
Microtubules, Tubulins and Associated Proteins. M.J. Raxworthy 2
4th FAOB Meeting, Singapore, December 1986. Report on the Educational Symposium 10
Teaching for the Two-sided Mind. F. Vella 10
Modernization of Medical Biochemistry Teaching in Czechoslovakia. A. Nemeckova 11
Tutorials and Small Group Teaching. E.J. Wood 13
Biochemistry in the Medical Curriculum. N. Chandrasekharan 16
Metabolonograms to Teach Biochemistry. A.J.S. Siqueira, J.O.R. Remiao and A.M. Azevedo 20
The Rule of Sixes. N.J. Birch 22
The Academic Majors and Baccalaureate Origins of Biochemistry Graduate Students — A Viewpoint from the USA. R.F. Boyer 23
Use of Questions from the Medical Biochemistry Question Bank with the "Q" Instruction Package. D.W. Aesche and G.R. Parslow 24
How Can Two Steps Simultaneously Control a Flux? J.-P. Mazat and E. Jean-Bart 28
A Parametrical Definition of Electrophoresis. A.L. D'Andrea 30
Calcium Binding Protein Families: The 'E–F Hand' Family. F. Friedberg 35
How to Obtain Information on Japanese Biotechnology. Y. Kagawa 37
Real-time Rotation of Colour Pictures of Proteins on a Low-cost Microcomputer. E.J. Milner-White 39
Biochemistry at High School and University Levels in Saudi Arabia. K.M. Abu-Salah, S.H. Sedrani and A.S. Al-Duhaiman 41
Experimental Section
Polyacrylamide Gel Electrophoresis Using a 12 volt Battery Charger as a Power Pack. High Resolution Microgels on a Low Budget. J.H. Walker 43
Analysis of Chromatin Structure and Composition. J.E. Pérez-Ortín, E. Matallana and V. Tordera 45
The Determination of Sialic Acid — An Experiment That Demonstrates Many Important Aspects of Spectrophotometric Assays. R. O'Kennedy 47
Letters to the Editor 49
Poster Review 49
Book Reviews 49
Lexicon 55
Monitor 56

April

Editorial 57
Role of H_2O_2 in Phagocytosis and Parasitism. M.S. Patole and T. Ramasarma 58
Biochemistry and Roles of Glycophorin A. S. Tayyab and M.A. Qasim 63
Symposium on Postgraduate Education 67
The Process of Graduate Education. A.H. Mehler 67
Should Our Postgraduate Training Adapt Specifically to Industrial Needs? L. Josefsson 70
Graduate and Postgraduate Education in Belgium and the Netherlands. W. Rombauts 72
Demands on and Specifications of Postgraduate Education in Medical Biochemistry. E. Hofmann 74
On Mr Robert Maxwell's 65th Birthday. P.N. Campbell 75
Reasoning in Biochemistry: Problem-Solving in Metabolism. D. Ploger and R. Harvey 76
'Heliwire' DNA Model to Visualize Syn and Anti Folding of Tetraplex Structures. G. Banfalvi and J. Fieldhouse 80
Anaerobic Digestion: A Case Study. J.J. Bermúdez, M. Cánovas, A. Manjón, J.A. Howell and J.L. Iborra 82
Biochemical Education in North-East India. S. Ahmad 85

Regional Courses: A Fruitful Approach for Advanced Biochemistry Teaching in Developing Countries. M. Krauskopf 87
The Role of Poems in Teaching Biochemistry. K.T. Augusti 88
Biochemical Education in Beijing Agricultural University. W. Xianrong 89
The Use of Computers in the Teaching of Hormone Receptor Interactions in the Presence of Two Types of Binding Sites or Negative Cooperativity. T.A. Santa Coloma and J.C. Calvo 90
Computer-assisted Calculation of Isoelectric Points of Proteins. M. Caplice and J.J.A. Heffron 91
pH Effects in Biochemical Reactions. What's the Meaning of pK and Midpoint? P. Ascenzi, E. Menegatti and G. Amiconi 93
Stoichiometry of Reducing Equivalents and Splitting of Water in the Citric Acid Cycle. V.M.C. Madeira 94
Conference Report: Computers in University Education. J.C. Harland 96
Experimental Section
A Simple Laboratory Experiment to Demonstrate Transamination. S. Dewhurst and I. Smallman 97
Simple Practical Investigations Using Invertase. E. Asare-Brown and C. Bullock 98
A Study of the Distribution of Flux Control Coefficients in an *in vitro* Metabolic System: A Practical Exercise. N.V. Torres, E. Meléndez-Hevia and J.M. Riolcimas 100
An Integrated Enzyme Kinetics Laboratory Sequence for Undergraduates. M.L. Bucholtz 102
Estimation of Sedimentation Coefficients and Frictional Ratios of Globular Proteins. C.A. Smith 104
Letter to the Editor 107
Videotape Reviews 107
Book Reviews 109
Lexicon 119
Monitor 120

July

Editorial 121
Nuclear Skeletal Structures. C. Krachmarov and J. Zlatanova 122
Biochemical Education in the Philippines 128
Biochemical Education in Brazil. F. Vella 130
Symposium on Postgraduate Education 132
Recent Trends in the Graduate Program in Biochemistry at Beijing University. T. Shen 132
Training for Research in Biochemistry. E.C. Slater 133
Graduate Education in Biochemistry. J.-C. Ma and X. Xiao-Li 135
Structure and Aims of Postgraduate Education in the United Kingdom. A.J. Turner 136
Teaching is Research: Some Thoughts on Teaching Biochemistry. D.P. Burma 139
Drawing Out the Common Themes: How to Show Students that Biochemistry is Not a Set of Isolated Topics. A.J. Furth 142
Teaching Students to Use the Library. J.F. Woodley 145
Practical Biochemistry Textbooks from 1900 to 1950. D.F. Evered 147
Observations on Teaching The Biochemistry of Hormones to a Second-year Nursing Class. R. Hobkirk 149
High School Students Are Ready for Recombinant DNA. M.J. Minch 151
Teaching the Structures of Small Biomolecules. C. Epp 152
A Metabolic Contribution of Fatty Acid Hydrogens to Gluconeogenesis. N.N. Aronson Jr 154
Dermatan Sulphate: Structure, Biosynthesis and Functions. S.K. Singla 156
Linkage Phenomena in Biochemical Systems: A Graphical Analysis. P. Ascenzi and G. Amiconi 158
An Easy Model to Understand Michaelian Enzymes. J.M. Arizmendi 159
Multiple Applications for Computers in Biochemical Education. R.P. Learmonth, B.G. Livett, W.H. Sawyer and S.P. Jones 161
Interactive Display of the Subunit and Chain Structure of Proteins on a Microcomputer. R. Mohamed and E.J. Milner-White 165
Computer-assisted Development of Problem-solving Skills in a Postgraduate Clinical Biochemistry Course. A.G. Dawson 167
The Use of a Modified Version of ENZPACK to Assess the Effectiveness of Four Different ways of Determining K_M and V_{max} for Michaelis-Menten Kinetics. P.A. Williams 170
Microcomputer Software Review 173

Experimental Section
Enzymatic and Chemical Fragmentation of Proteins: A Simple Laboratory Visualization of Differences in Yield, Specificity and Applicability. J. Vendrell and F.X. Avilés 174
A Simple Polarising Circuit for O_2-Electrode Systems. J.R.L. Walker 177
Simplified ^{14}C-Carbamoyl Phosphate-based Assay of Aspartate Carbamoyltransferase. R.K. Airas 177
Turning Over an Old Leaf 180
Letter to the Editor 181
Book Reviews 181
Lexicon 184
Monitor 184

October

Editorial 185
Ligand Binding — A Primer. P.H. Bligh 186
Integrating Clinical Problem-solving Workshops and Lectures in a Biochemistry Course. W.E. Farnsworth, F. Medio, K. Nelson, D. Mann, D. Norwell and L.J. Van Winkle 196
An Example of a Practical Biochemistry Examination for Health Professional Students. A. Otsuka and B. Kadis 200
Biochemical Education and Research in King Faisal University Medical College, Saudi Arabia. A.I. Alayash 202
New Edition of Chinese Biochemistry Textbook. M. Jian-Chuan 203
Tapping an Untapped Resource. K. Baumlin 204
Environmental Biochemistry — A New Approach for Teaching the Cycles of the Elements. J.C. Diaz Ricci, R.R. Grau, A.S. Limansky and D. de Mendoza 205
The Concise Encyclopedia of Biochemistry. T.A. Scott 208
A Simple and Universal Method for Making up Buffer Solutions. C. Dennison 210
The Importance of Naturally Occurring Toxicants in Foods. S.K. Agarwal 212
Teaching the role of AMP in Metabolic Control. H.B.F. Dixon 214
A New Approach to Michaelis-Menten Kinetics and Enzyme Inhibition. M. Prats and J.P. Forestier 217
Mini Review: Protein Folding: A Problem of Today. S. Tayyab 221
KINEXP: Computer Simulation in Enzyme Kinetics. J.L. Gelpí and C. Domènech 222
Restriction Enzyme Searches Using the Word Processing Software: LOCOSCRIPT. T. Smith 224
The Use of Computers in the Teaching of Quantitative Aspects of Biochemistry. J.B. Clarke 226
Microcomputer Software Reviews 228
Turning Over an Old Leaf 229
Experimental Section
Yeast Acid Phosphatase in a Student Laboratory. S. Barbarić and B. Ries 230
The Partial Purification and Characterization of Lactate Dehydrogenase. E.C. Wolf 231
A Visual-electrophoretic Method for Following the Purification of Ribulose-1,5-bisphosphate Carboxylase Oxygenase. L. Peñarrubia, J. Moreno and P. Carrasco 234
Letters to the Editor 236
Book Reviews 236
Lexicon 247
Monitor 248